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Improving the Performance Practice of 21st Century Music of Grade 10 Students Through Digital Learning Material

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ABSTRACT

This Action Research was conducted to test the effectiveness of digital learning material in the form of video lesson in improving the performance practice of 20th music of Grade 10 students. This research was participated by the Grade 10 students of Sanchez Mira School of Arts and Trades, Sanchez Mira District for the School Year 2021-2022. The researcher used quasi-experimental research design in this study, specifically a one group pretest - posttest design. The instrument was reviewed and validated by the School/District Research Screening Committee. The study's findings show a significant difference in participants' achievement levels before and after using the digital learning material, and using descriptive statistical tools such as percentage, mean, and standard deviation (SD) to show the mean distances of their scores, students' performance during the post-test is somewhat better. The statistical tool t-test: Paired Sample strongly suggests that there is a significant improvement in the participants' performance following the intervention. The Cohen's D outcome is consistent with the fact that the intervention used in this study had a significant impact on the learners' performance and learning experience in music during the pandemic. It implies that supplementary digital materials and online classes in teaching music are important during the pandemic. It is suggested that Grade 10 teachers consider using digital learning material in the form of video lessons in their respective classes to improve their students' performance practice of twentieth-century music. School leaders should use the study's findings to develop programs and initiatives in their respective schools.

INTRODUCTION

In the advent of technology and the global challenge that we faced at this time of pandemic, the educational system was tremendously affected especially that the crisis has come quickly and drastically. Apparently, the prelude of the new Asian trend of music in social media and other popular songs of varied genres has likewise changed the level of interest among learners in the field of Music particularly in the orchestral music which are significant in the general academic performance of the learners in this area. It is worthy to note that with the abrupt change of all these entities, alternative means of teaching and learning music must have been adapted if not innovations on instructional design in digital form post an intractable challenge. As evidence, Ou, C., et al. (2019) emphasized that designing and developing video lessons offered a wide range of effectiveness and educational opportunities that could not be achieved in traditional face-to-face form of learning and instructions. That is tantamount to significantly encouraging teachers to develop digital learning materials suited to the current teaching-learning process of educating the young in the distance modality. According to Ming-Hung Lin and Huang-g Chen (2017), digital learning has a greater positive impact on learning outcomes than traditional teaching. Furthermore, GK Nalini et al. et al. (2020) show in their study that the improvement in the posttest was more noticeable in online learning.

Furthermore, it was attested by Obagah, RR., & Brisibe, WG., (2017) that when instructional videos are used,

memory retention of the topics taught would likewise be improved. This gave the researcher an idea of an innovation that could meet the needs of learners in online and distance modular learning. Using digital learning materials in music education is thus very timely to meet the needs of the students. Sanjai Sinha, et. al. (2020), concluded in their study that video lessons are feasible for the delivery of primary care for patients during the COVID-19 pandemic.

Conversely, it was observed that learners have a hard time mastering the most essential learning competencies in some of the subjects especially in music because of the unavailability of these materials in the portal but also the lack of supplemental or alternative learning materials.

In our school context, the researcher figured out that remarks in his Daily Lesson Log for the school Year 2020-2021 that 50% of these Grade 10 students could not explain the performance practice (setting, composition, role of composers/ performers, and audience) of 20th century music. Added to this, with the result of the retrieved diagnostic test in music during the first week of retrieval and distribution, it could be gleaned that 53 out of 289 or 20.5% of Grade 10 students failed to meet the 75% passing score of the test in this particular competency.

Knowing all these problems, the researcher thought of finding ways to address this using existing data found in the LESF particularly on the remarkable number of enrollees who have available gadgets, internet and data connection. It could be inferred that there were 231 out of

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289 or 89.5% Grade 10 enrollees who have cellphones or digital gadgets. From those learners, 22 or 9.5% used PLDT prepaid fiber connection, and postpaid internet connection respectively while 90.47% utilized prepaid/data.

As a result, the researcher worked to improve an innovative Digital Learning Material in the form of video lessons that significantly improved the academic level of Sanchez Mira School of Arts and Trades Grade 10 students, specifically to explain the performance practice (setting, composition of composers/performers, and audiences) of 20th century music.

Innovation, Intervention, and Strategy

The Digital Learning Material is a MELC based video lesson that can be used individually and suitably for learners in this time of pandemic where face-to-face interaction is highly discouraged. This instructional material has features convenient to use for learning and appropriate enough for high school students that can eventually trigger their interest and can make learning easy and fun. Such features include plug and play, download and play or copy-paste the link on YouTube and then play that spells its difference from the usual powerpoint presentation.

It was localized and contextualized in order to meet the level of understanding of the learners and to enhance their knowledge in 20th century music. Unlike other videos, this DLM is not activity-based material but very useful in understanding the concepts, features of the different music, and familiarizing them with the works of the composers of 20th century music. It is also important in developing the learners' listening skills.

The Digital Learning Material is a 19-minute video lesson discussion and presentations of the music in the 20th century where impressionism, expressionism, musical styles, and the different works of the composers are digitally presented. Some of the famous masterpieces of the composers are also inserted in every composer's presentation to explain and to show their works during their time. The different musical styles in the 20th century, such as Electronic music and Chance music, are also presented in the DLM.

The video lesson will be used to help the Grade 10 learners understand comprehensively their lessons in music of the 20th century. Likewise, it is designed to make the learners visualize, listen, analyze and understand music to meet the learning competencies that need mastery for the first quarter, hence making it innovative.

As to the strategy, the researcher crafted the video lesson through the use of offline applications that can be downloaded from playstore such as Kinemaster (Filmora), and Bandicam. Bandicam is a lightweight screen recorder software for Windows that can capture anything on your PC screen as high-quality video. This app also makes it possible to record a certain area on a PC screen, or capture a game that uses the DirectX/OpenGL/Vulkan graphic technologies. The researcher used this application in recording the power presentation-converted to video and other video materials that were used in the DLM.

The researcher also used the Kinemaster application for it provides a wide range of video editing functions, including transition effects, text and handwriting overlays, video and image layers, up to four additional audio tracks, detailed volume envelope control, and more. Recorded videos and recorded audios were inserted per segment and edited according to the sequence of the lesson based from the SLM. Interestingly, the created DLM was then uploaded to YouTube that can be downloaded anytime for instructional purposes.

The DLM will be implemented under the supervision of the researcher and with the guidance of the parents in 2-week time every Friday between September 24 and October 1, 2021, between 1 pm to 5 pm, as specified in the proponent's class schedule. The study will have 11 participants per week, for a total of 22 participants. The researcher will meet and give instructions to the participants together with their parents through the use of google meet, zoom or other social media platforms. Questionnaires in Google forms shall be sent in Facebook messenger. A 30-minute time will be given to the participants to answer every questionnaire and 20 minutes to study the video lesson. Close monitoring and guidance of the parents with the supervision of the researcher will take place throughout the process for the validity of the data to be gathered.

The best practices on proper personal hygiene and IATF protocol shall be observed while following the procedures:

The students prepare any available digital device/gadget at home such as smart TV/ TV with usb port, Android/ smartphone, Laptop, Desktop or any gadget that has internet connectivity.

For the participants to be ready during the implementation, the students shall download the DLM through YouTube via internet connection. If the internet will not be available, the teacher/proponent will share the DLM through flash drive, compact disk, Bluetooth, messenger and other social media platforms that can easily be accessed through data connection.

During the implementation, the participants will be divided into two groups based on gender. Week one will be all males, and week two will be all females. Day 1-2 will be a video lesson on Impressionism, Day 3 will be on Expressionism, and Day 4 will be on Electronic and Chance Music. At each meeting, the researcher will administer formative assessments to ensure mastery of competency.

Action Research Questions

In this context, this action research evaluated the effectiveness of the Digital Learning Material in improving the musical achievement level of Sanchez Mira School of Arts and Trades Grade 10 students for the School Year 2021-2022.

The study specifically addressed the following questions:

1. What are the mean scores of the participants in the pretest and posttest?
2. Is there a significant difference between the

pretest and post-test scores of the participants after the intervention?

3. What is the effect size of using the digital learning material to the academic level of the participants in music?

Action Research Methods

The researcher used a quasi-experimental research design in this study, specifically a one group pretest - posttest design. The same group of respondents was given a pretest, an intervention, and a posttest in this research method. The results of the pretest and posttest were compared to see if there was a significant difference.

a. Participants and/or other Sources of Data and Information

The study was carried out at the Sanchez Mira School of Arts and Trades in the Sanchez Mira District of Santor, Sanchez Mira, Cagayan. The sources of data were the pretest and posttest of the Grade 10 students.

Purposive sampling was used to identify respondents because the proponent has delved deeper into the purpose of the study, which is to see the effectiveness of the designed intervention based on the learners' available resources.

Furthermore, 11 males and 11 females were qualified participants based on their internet access, available laptops, and gadgets from the Learners' Enrolment Survey Form (LESF).

The researcher's Google forms were used to automatically analyze the students' output.

b. Data Gathering Methods

The main instrument used to collect data in this study was a 30-item pretest and post-test that was taken from the MAPEH Grade 10 modules that was download from the SDO CAGAYAN learning portal which was modified and enhanced by the researcher. The District and School Research Screening Committee reviewed and validated the instrument.

Researcher collected data from participants using online platforms, specifically Google forms, as the primary strategy, with prepared diagnostic, pretest, and post-test tests sent via students' messenger or the Google Meet chat box during the specified timeline.

Before collecting data from the students, they were informed of the purpose of the study. Because the study includes participants who are still considered minors, they were asked to participate by providing written consent and a waiver from their guardian or parents. The researcher also protected their confidentiality and privacy as participants.

In terms of data collection, protocols for the study's execution were sought from the school's principal and other relevant offices.

The researcher seeks permission from the principal and other school personnel to proceed with data collection. MAPEH teachers were also informed about the research being conducted on the use of DLM intervention in improving students' academic levels. Furthermore, to improve the research, the researcher received online

technical assistance from the division technical working group on research conducted by the Schools Division Office.

Following the online conference and integration of recommendations and suggestions, the researcher seeks the approval of the Public Schools District Supervisor and the Division Technical Working Group before submitting the study for approval to the Division Education Supervisor In-Charge and the Schools Division Superintendent.

c. Discussion of Results and Reflections

This chapter highlights the collected data as well as the statistical treatment of the data. It concludes the respondents' pre- and-post-test scores, including the discrepancy in the level of performance of the respondents in their pretest and post-test. It also provides an overview of the impact of digital learning materials on student achievement.

Table 1: Mean Pretest and Posttest Scores

Tests	Mean	Standard Deviation
Pretest	11.32	4.26
Post-test	22.67	2.22

Table 1 reveals the results of the analysis of their pretest and posttest scores that students obtained a mean score of 11.32 with a standard deviation of 4.26 during the pretest of thirty (30) item test, indicating poor performance on the pretest. Furthermore, during the post-test, students obtained a mean of 22.67, indicating improved student performance as a result of the intervention used. This manifests that the learners perform better in the posttest than in the pretest. The standard deviation of 2.22 indicating the mean distances of their scores indicates that students' performance during the post-test is somewhat consistent. This implies that the intervention improved the performance practice of 20th century music of Grade 10 students through digital learning material in the form of video lesson during the pandemic which modular distance learning is widely used.

The above result is collaborated with the Ming-Hung Lin et al. (2017) cited in their studies that increasing learning time for students with digital learning relatively improves learning performance. This finding demonstrates that incorporating digital learning into classroom instruction benefits not only students, but also teachers in the time of pandemic. Aside from promoting personal professionalism, teachers may perceive that students recognize teachers' efforts and passion for teaching.

Aside from that, many recent studies have emphasized the significance of technology-based music education in favoring interactions between students and teachers. Like the study of Ruokonen and Ruismäki (2017) explicitly stated in their findings that, while technology has improved music education, face-to-face instruction is still essential because music is a very intuitive subject. They hypothesized in their study that blended learning would be the best approach to overcoming the limitations of

Table 2: Test of Difference between Pretest and Post-test Scores

Tests	Mean	t-value	Probability Value	Statistic Level of Significance	Statistic Inferential
Pretest	11.32	21.28	1.08E-15	0.05	Significant
Posttest	22.67				

online music learning. However, none of these studies provided empirical evidence of the efficacy of blended learning in improving students' musical competence. As a result, the emphasis of this study was on the effective use of blended learning for improving students' competencies in Oriental Music at the secondary level of education.

According to the table, the test claimed that there is a significant difference between the two scores in favor of the posttest, as evidenced by the computed t-value of 21.28 and a probability value of 1.08E-15, both of which are less than the 0.05 level of significance. Nonetheless, in a 30-item test, the obtained mean score is 22.67 during the post-test and 11.32 during the pretest. The findings strongly suggest that the intervention resulted in a significant improvement in the participants' performance. It is worth noting that, in this day and age, supplementary material, which is digital learning material in the form of video lessons, improves learners' achievement levels in teaching music.

The improvement in their performance further affirms that creating a digital learning material or employing

technology in teaching music in this time of pandemic has a number of advantages and significant influence on the learning success of students wherein face-to-face classes is not possible. In an study, which Purves, 2012; Sweeney et al., (2017) emphasized that Music education is no exception, seeing significant study and growth and building upon general trends of technology use in the modern classroom. In a qualitative study conducted by Johnson and Lamothe (2017), faculty experience changes, or shifts, as they navigate the successes and challenges of designing and teaching music in an online environment. Furthermore, the findings suggest that incorporating supplementary digital learning materials into the teaching process has a significant impact on the students' learning experience. This is supported by the claim of O'Callaghan et al., (2017), which confirmed that a well-designed online learning environment can provide students with 24/7 access to materials for multiple viewings of resources; regulation of learning, flexibility of learning schedules, and accessibility accommodations (Henderson et al., 2017); and the availability for developing a collaborative

Table 3: Test of Effect Size

Tests	Mean	t-value	Cohen's d value	Scale	Remark
Pretest	11.32	21.28	3.33	above 2.0 - huge	Huge effect size
Posttest	22.67			1.20-2.0 - very large 0.80-1.19 - large 0.5-0.79 - medium 0.2-0.49 - small 0.01-0.19 - very small	

learning environment (Harasim, 2017).

As reflected in the table, the computed Cohen's d value of 3.33 shows that there is a huge effect size of using the intervention to the performance of the students along the competency, the significant increase in their mean performance from 11.32 during the pretest to 22.67 of the posttests manifested the great effect of the used of the intervention. Indeed, the intervention is highly effective.

The outcome is consistent with the fact that the intervention used in this study had a significant impact on the learners' performance and learning experience in music during the pandemic. It strongly suggests that supplementary digital materials and online classes in teaching music are extremely important during the pandemic. This finding also strengthens the claims of Dye (2007), and King et al. (2017), who continue to work in online music studies and investigate pedagogical challenges (for example, technology tools and approaches to course design) in transitioning from face-to-face to the online teaching environment, thereby confirming the need for online music pedagogy in online classes.

Furthermore, it is rewarding to note that the students' positive performance in the post-test indicates that the intervention had a significant effect in the current situation. The fact that digital materials contain many visual, auditory, or interactive elements, on the other hand, makes them a valuable resource for students with different learning styles and intelligence types. Furthermore, students are said to benefit from digital materials in terms of information selection, organization, and integration (Zwart, Van Luit, Noroozi, & Goei, 2017).

Summary of Findings

The following findings were discovered as a result of the study:

1. The students obtained a mean score of 11.32 with a standard deviation of 4.26 during the pretest of thirty (30) item test and achieved a mean score of 22.67, indicating improved student performance as a result of the intervention used.

2. A probability value of 1.08E-15, which is less than the 0.05 level of significance was used and their obtained mean score of 22.67 during the post-test and 11.32 during the pretest with the 30 item tests.

3. The computed Cohen's d value of 3.33 manifested the huge effect size of using the intervention to the performance of the students along the performance practice of 20th century music (MU10TC Ib-g-4).

CONCLUSION

The respondents' performance improved significantly after the intervention was implemented. This implies that the intervention had a positive effect on the learning outcomes and experiences of the respondents. Moreover, applying the Cohen's d value, the use of digital learning material in the form of video lessons was very effective in teaching and improving the performance practice of 20th century music of Grade 10 students. Furthermore, the intervention is highly effective because it increased learners' motivation in their learning experience, provided learners with enough time to grasp the gist of the lesson, and developed a broad range of knowledge acquisition, resulting in learners' interest in online teaching-learning activities rather than online gaming.

RECOMMENDATIONS

In response to the aforementioned findings, the following proposed recommendations are designed in this time of crisis:

1. MAPEH teachers may consider using digital learning material in the form of video lessons as an intervention to improve their students' performance in Music. Consider the revealed findings for inspiration in Table 1.

2. MAPEH and other teachers are strongly encouraged to create their own conceptualized MELC-based video lesson to improve the learning outcomes of their students in music and other subject areas, particularly during a pandemic. Consider the effectiveness of the intervention in Table 3.

3. MAPEH teachers may consider in designing their Learning or Work Plans to include the use of digital learning material in MAPEH instructions in order to improve and develop their students' academic performance, particularly in Music.

4. MAPEH teachers may consider to hold a Learning Action Cell (LAC) session to create video lessons for professional growth opportunities, so that they can learn from one another and improve their online teaching skills.

5. MAPEH and other teachers from various specializations should strategically welcome the intervention to use in their teaching-learning process by conducting parallel studies using a research-based approach to increase methodological practice in their specific subject area for comparative analysis.

6. The school head should also consider including the study in the School Improvement Plan, Annual Improvement Plan, and Work Financial Plan for funding purposes.

Reflections

Everyone enjoyed learning and discovering music because it is the universal language of mankind. Music, on the other hand, is a branch of arts in which all of the senses

are used to learn and comprehend to its concept. It is, however, a subject that cannot be taught solely through reading, but rather through listening and watching.

In this current situation, our learners have a hard time in acquiring the most essential learning competencies in some of the subjects especially in music; this is because of learning materials available such as SLMs could not meet the needs of our learners. This prompted the researcher to take an action to provided quality education that is accessible to his learners.

As discussed, in the event of a pandemic, digital learning material has a greater positive impact on learning experience and learner performance than modules alone. Students can develop effective self-directed learning skills with the help of digital learning materials and technology. They can identify what they need to learn, locate and use online resources, apply the information to the problem at hand, and even evaluate the feedback they receive.

As a result, their efficiency and productivity improve. Digital learning materials, in addition to engaging students, sharpen critical thinking skills, which are the foundation for the development of analytic reasoning. Learners who use their imagination and logic to explore open-ended questions learn how to make decisions rather than simply memorizing the textbook or Self Learning Modules in time of pandemic. Digital learning material provides better context, a greater sense of perspective, and more engaging activities than traditional education methods because it is far more interactive and memorable than voluminous SLMs, LASs or one-sided lectures. Students are better able to connect with the learning material as a result of this.

Furthermore, they frequently provide a more interesting and engaging way to digest information. Their retention rates and test scores reflect this. As a result, teachers are strongly encouraged to create their own MELC-based digital learning material using online and offline applications.

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Teacher Organizational Commitment

- My school inspires me to do the best I can
- I'm proud to be a part of this school team
- I really care about the fate of this school
- I find that my values and the organization's values are very similar
- I regularly talk to friends about the school as a place where it is great to work
- I'm really happy that I choose this school to work for

Teacher Empowerment

Fac.1 **Meaningfulness**
 The work I do is beneficial for me
 My job gives me the chance to use innovative ideas.
 I am always motivated to complete the work assigned by the organization
 My job fulfils my professional needs.
 I receive professional respect and appreciation from my colleagues.

Fac.2	Competence I perform the assigned tasks effectively I am confident about my abilities for completing the tasks assigned to me. I am able to utilize available resources to accomplish tasks. I have abilities to solve any type of work-related problems. I take personal initiatives in carrying out my work I am well equipped with the skills to develop curricula for the students.
Fac.3	Self-Determination I have control over my work such as selection of textbooks, lesson planning and scheduling I am free to share my own views for the work-related discussion. I select the study material taking into consideration the performance of students.
Fac.4	Impact My work exerts positive effect on my organization My work influences strategic, administrative outcomes of the organization. I believe that standards of quality of my organization depend upon my work I play a lead role in implementation of new policies in my organization